

ABSTRACT OF THE DISCLOSURE

The magnetic memory includes a plurality of memory cells, each memory cell including: at least one writing
5 wire; at least one data storage portion, provided on at least one portion of an outer periphery of the writing wire, which comprises a ferromagnetic material whose magnetization direction can be inverted by causing a current to flow in the writing wire; and at least one
10 magneto-resistance effect element, disposed in the vicinity of the data storage portion, which senses the magnetization direction of the data storage portion.